

Philadelphia

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REPORT

OF A

Vol 337

JOINT SPECIAL COMMITTEE

OF

SELECT AND COMMON COUNCILS,

(Appointed on the 7th December, 1848,)

TO WHOM WAS REFERRED CERTAIN QUERIES CONTAINED IN A  
CIRCULAR LETTER FROM THE

AMERICAN MEDICAL ASSOCIATION

ON THE SUBJECT OF

**PUBLIC HYGIENE.**

Surgeon's Office.  
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1781  
Washington, D.C.

Published by Order of Councils.

PHILADELPHIA:

CRISSY & MARKLEY, PRINTERS, No. 4 MINOR STREET.

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# REPORT.

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*To the Select and Common Councils.—*

The Joint Special Committee, to whom was referred a communication from Dr. Parrish, covering a circular letter from the “American Medical Association,” containing certain queries in relation to Public Hygiene—

## RESPECTFULLY REPORT:—

That for the purpose of more effectually attaining the result desired by the queries assigned to their consideration, they caused letters to be addressed to a number of gentlemen who are members of, or connected with public institutions, and the City Corporation, whose opportunities and means of procuring information it was believed had qualified them to impart reliable and important knowledge in relation to Public Hygiene; from nearly all of these answers have been received, and the minute care and attention to the wishes of your Committee, which characterise these documents, entitle their authors to the unqualified thanks of Councils.

The letters referred to, are herewith appended, in the following order, viz:—

No. 1. A letter from *Frederick Graff*, Superintendent of Fairmount Water Works.

No. 2. A letter from the *same*, containing analyses of the Schuylkill water, by Prof. *Boyé*, and by Prof. *B. Silliman, Jr.*

No. 3. A letter from *Edward Olmsted*, City Solicitor.

No. 4. A letter from *Marine T. W. Chandler*, Assistant City Surveyor.

No. 5. A letter from *Adam Traquair*, President of City Commissioners.

No. 6. A letter from *John Hewston*, Collector of Vaccine Cases, in South-west district.

No. 7. A letter from *Samuel Hains*, City Surveyor.

No. 8. A letter from *J. Henry Bulkley*, Second Lieutenant of Police.

No. 9. A letter from *John Clawges*, Collector of Vaccine Cases, in North-east district.

No. 10. A letter from *same*.

No. 11. A letter from *James Kelly*, Collector of Vaccine Cases, in South-east district.

No. 12. A letter from *John M. Fernsler*, Collector of Vaccine Cases, in North-west district.

No. 13. A letter from the *same*.

No. 14. A letter from the *Board of Health*.

The mass of information thus presented, of the actual state of the City proper, the means and resources of its people for preserving health; its cleanliness, ventilation, and other interesting matters concerning its welfare; cannot fail to prove useful, not only as regards the immediate purpose of our present research, but will doubtless essentially assist in the accomplishment of any measures in future which Councils may see fit to recommend or enforce in order to maintain the continued prosperity and happiness of their fellow citizens.

Since the partial prevalence of malignant fever in the summer of the year 1820,—at which time a highly intelli-



gent Committee of Councils were employed in investigating the causes of, and published a number of valuable suggestions for preventing and mitigating epidemics,—and the epoch of the Asiatic Cholera in the year 1832, great attention has been given by the public authorities to the *means* of removing the causes to which epidemic or contagious diseases have been attributed, or promote their propagation and spread; and their efforts in this good work are abundantly apparent since the first period named—to which also may be ascribed the mitigated form of the latter pestilence—in the improved method and large extension of surface and sewer drainage; in the pavement of *all* the lanes, courts, and alleys, within the populated bounds of the City, whether public or private; and in providing all the appliances of thorough cleansing, by manual labor, and a plentiful supply of Schuylkill water.

But notwithstanding the ample means that has been supplied by laws or otherwise, if their provisions and uses are allowed to fall into neglect, or are unfaithfully ministered, they become worse than nugatory, because of the reliance placed in the integrity of the persons having charge of the duties enjoined. This applies particularly to cleansing the docks on the rivers, the numerous inlets to sewers, and the streets, especially the alleys and other narrow avenues of the City, the removal of piggeries, &c. But the deficiency in cleanliness, perhaps most to be dreaded, exists even in our midst, from a careless or culpable want of this virtue in private residences. It must not be concealed that this grievous evil does not obtain *solely* in the habitations of the poor and destitute, in lanes, in courts, and in alleys; but actually exists also on the premises of persons whose means are adequate to procure a better state of things—where there are cellars, vaults, sinks, privies, and other secret and hidden depositories of filth to be found; in some cases we may per-

haps charitably hope, unknown to those most immediately interested—heads of families.

It seems, therefore, to your Committee, imperatively incumbent on every member of the community, as well as on the public guardians of its health and welfare, to be on the alert, and unceasingly vigilant in ferreting out, and causing to be removed *all* existing nuisances; more especially at this time, when our population is threatened by a fearful calamity, which all acknowledge, spreads in places of uncleanness with intense virulence; assured however, in the certainty, that in all instances *where* a strict and diligent regard to *cleanliness* is maintained, *there* is the sign of safety, and the pestilence is stayed, or passes over with comparative harmlessness.

Your Committee further beg leave to offer the resolution annexed.

CHAS. A. POULSON, <i>Ch'n.</i>	} Committee on Public Hygiene.
JOSEPH M. THOMAS,	
JACOB E. HAGERT,	
ALGERNON S. ROBERTS,	

*January 26th, 1849.*

*Resolved*, That the report of the Committee and accompanying documents be placed on the Journals of Councils, and that the Committee be, and they are hereby authorized to cause to be printed five hundred copies of the same.

# DOCUMENTS.

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## No. 1.

CHARLES A. POULSON, Esq.,

Chairman of the Committee on Hygiene.

DEAR SIR—I take great pleasure in answering, as far as I am able, the questions contained in your note of the 12th instant, received last evening.

*Question 1st.*—From what source is the city supplied with water?

The water so freely used by our citizens is pumped by water power machinery, from the river Schuylkill, at Fairmount, into reservoirs, situate upon the summit of the mount. These reservoirs are subdivided into six departments; the connections between them being so arranged, as to admit of the subsidence of the sediment contained in the water, as far as possible, previous to its passage into the city—during which passage through the mains, a further deposit of its impurities is made, so that, on ordinary occasions, it may be drawn from our hydrants in a very pure state; but the small size of the reservoirs, and the large quantity of water required, will not allow of its remaining



a sufficient length of time in the reservoirs, to admit of its being purified after the occurrence of freshets in the river, consequently the water is often thick and muddy for some days together; yet the average number of such days in a year, I think, will not exceed twenty, and during the present year, did not amount to more than ten or twelve.

*Question 2d.*—How is it distributed?

The water is conducted into the city through two principal iron mains, of twenty inches diameter each; from these, are carried lateral mains, varying in size from three to sixteen inches diameter, and extending in the city proper, alone, nearly *seventy-five* miles. Pipes are now laid in all the main streets, and in almost all the public lanes and alleys of the city east of Broad street; but west of Broad street the distribution is not so complete, although it is carried to all places where there are a sufficient number of houses built to warrant it. I have not the means of ascertaining what proportion of the houses in the city are supplied with water. The number of tenants who paid for a supply of water in the city proper, in 1847, was 15,205, and it is supposed that at least 3,500 families were supplied by means of the public hydrant pumps.

*Question 3d.*—What are the number of baths?

The number supplied in 1847 was 3521 private, and *four* public baths.

*Question 4th.*—What are the qualities of the water?

The waters of the Schuylkill river have been several times analyzed by good chemists, and found to be very pure, containing only from four to five grains of foreign matter, in one gallon; of this, one half is a carbonate of lime, obtained in its passage through the limestone region, which commences in the neighborhood of Reading. Of the quality of the water, medicinally considered, I know nothing.



*Question 5th.*—Is the supply of water abundant?

I consider the supply of water quite adequate to all the necessary purposes of life. The quantity distributed during 1847, to the City, Southwark, and Moyamensing, was an average throughout the year, of 4,075,682 gallons per day, equal to 179 gallons to each tenant, allowing six persons to each family, the supply to each individual was nearly 30 gallons per day, and upon many of the hot days of summer, has reached 45 gallons each, per day. This is quite equal to the supply furnished to any city in the Union, except New York, where, however, the waste of water is enormous.

The free use of water in our streets, when assisted by a vigorous application of the *broom* and *scraper*, is certainly all important, and cannot be too often applied; but I do not believe in the efficacy of a lavish flow of water through our gutters, or by sprinkling the streets, without any use being made of either the scraper or broom, as I fully believe it causes a humidity in the atmosphere, which must be more or less detrimental to the health of the city.

If you consider it important, I can furnish you with the particulars of Professors Silliman and Boyé's analyses of the Schuylkill water.

I remain, with great respect,

Very truly, your obedient servant,

FREDERICK GRAFF.

December 14, 1848.

Any further information it may be in my power to communicate, will be gladly furnished.

F. G.

## No. 2.

CHARLES A. POULSON, Esq.

DEAR SIR—Below, please find analysis of the Schuylkill water. That of Professor Boyé was made, I believe, in the year 1842, and Professor Silliman's, in 1847. In both cases, the water was taken from the river above the dam, just before its entrance into the forebay.

## ANALYSIS OF PROFESSOR BOYÉ.

Alkaline Chlorides—grains in one gallon of water,	0.153
Do Sulphates, “ “ “ “	0.560
Do Carbonates, “ “ “ “	0.185
Carbonate of Lime, “ “ “ “	2.190
Do Magnesia, “ “ “ “	0.484
Alumina & ox. of Iron, “ “ “ “	0 077
Silica, “ “ “ “	0.395
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	4.400
Organic matter, “ “ “ “	0.080
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Total residue—grains in one gallon of water,	4.480
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## ANALYSIS OF PROFESSOR B. SILLIMAN, JR.

Chloride of Sodium—grains in one gallon of water,	0.1470
Do Magnesia, “ “ “ “	0.0090
Sulphate of Ditto, “ “ “ “	0.0570
Carbonate of Lime, “ “ “ “	1.8720
Do of Magnesia, “ “ “ “	0.3510
Silica, “ “ “ “	0.0800
Carbonate of Soda, “ “ “ “	1.6436
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	4.2600
Organic matter, “ “ “ “	1.2400
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Total residue—grains in one gallon of water,	5.5000
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You will notice that the actual components of the water itself, in these analyses, are nearly the same in quantity—the difference being in the organic matter, which must vary with every freshet in the river. An analysis made by Professor Hosford, during the early part of the present year, shows a total residue of 3.508 grains in one gallon, only.

I remain, very respectfully,

Your obedient servant,

FREDERICK GRAFF.

*December 16, 1848.*

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No. 3.

*Philadelphia, 14th December, 1848.*

CHARLES A. POULSON, Esq.,

Chairman Joint Special Committee, &c.

DEAR SIR—In reply to your letter of this morning, enquiring of me, what municipal regulations there are on the subject of hygiene, and whether or not, they are effective? I answer, that the only regulations on the matter referred to, within my knowledge, are contained in the following Acts of Assembly, and Ordinances of the City. In an ordinance of 22d May, 1797, which authorizes the City Commissioners to appoint and limit the depth to which privy wells shall be dug.

Ordinance of 9th August, 1821, directing the City Commissioners to require the owners of private streets to remove all nuisances therefrom, and to pave the same.

Ordinance 8th March, 1827, providing for cleansing the city.

Act of Assembly, 24th March, 1832, authorizes the City to take measures to require the wharves to be paved, so as

to effectually drain and pass off the water, and to compel owners of wharves to clean the docks.

Act of Assembly of 18th February, 1769, forbidding the discharge from any stillhouse or workshops, any foul or nauseous liquor unto adjacent ground, or into any vault, well, or sink, and forbidding distillers, soapboilers or tallow chandlers, discharging any foul or nauseous liquid from any stillhouse or workshop, into the street.

The several Acts of Assembly, providing for gratuitous vaccination.

In addition to these regulations, the common law is always open to correct and punish nuisances, and the authors.

I have no peculiar means of judging whether the regulations referred to, attain the ends aimed at; but from my observation, I think nuisances to health exist in very few instances in Philadelphia.

I refer the Committee to the accompanying pamphlet, which contains a report made to Councils, on the subject of a pestilential disease, in 1820, in which will be found much information, and some of a kind which may assist the Committee in their inquiries.

I am, your's respectfully,

EDWARD OLMSTED,

*City Solicitor.*

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No. 4.

CITY SURVEYOR'S OFFICE, }  
Dec. 15th, 1848. }

TO CHAS. A. POULSON, ESQ.,

Chairman of Joint Special Committee of Select and Common Councils.

DEAR SIR—In answer to your questions, relative to the grading, &c., of the streets of the city, I have the honor to report, that



The arrangements of the city for drainage, consist in a proper regulation of lines and heights in all the streets, lanes and courts comprised in the city limits; of these lines and heights, in which the grading of the city consists, there is a record kept at this place, accessible to any one during office hours. The paving of the streets, lanes, &c., is in strict conformity with this regulation, and except in instances where, through want of repair, irregularities occur, the inclination of the surfaces is, in every instance, amply sufficient for drainage.

The extent of surface drained by means of sewers, is at present, nearly enough for the immediate purpose of carrying off the water deposited. There is no question, however, but that an increase in the amount of subdrainage, would tend to assist, in a great measure, in preserving the cleanliness of our city. The answer to your last question, relative to the *efficiency of the mode adopted* for drainage, is, I think, embodied in the above remarks. I have had occasion, in a number of instances, to compare the advantages which we enjoy in Philadelphia, in regard to cleanliness, with the means necessary to be adopted in some of the largest cities of Great Britain, and find great cause of congratulation, both with reference to the natural advantages of surface and soil, and the manner employed for drainage. In many cases, particularly in London and Manchester, as shown in the report of the "Commission on the Health of Towns," it is absolutely necessary to resort to a system of flushing, (produced by a temporary retention of water,) to carry off the filth collected in twenty-four hours. In other instances, the water is introduced into certain localities, only a short time during each week.

I am aware that it is of little consequence to follow out the accounts of the discomforts of our neighbors, but the contemplation of the facts, with regard to the want of cleanli-

ness in the places where the scourge is at present raging, may tend to allay our fears, by assuring us of our being better prepared for its advent among us.

With great respect,

Your obedient servant,

MARINE T. W. CHANDLER,

*Assistant City Surveyor.*

No. 5.

*City Commissioner's Office,* }  
*Philad'a, Dec. 15, 1848.* }

TO CHARLES A. POULSON, Esq.,

Chairman Joint Special Committee of Councils.

SIR—I respectfully submit the following answers to your several interrogatories on the subject of *hygiene*, contained in your communication of 12th instant.

*Question 1.*—What is the mode and expense of cleansing the streets?

*Answer 1.*—The mode of cleansing the streets, is by scraping, sweeping and washing the gutters and market-houses—collect all the dirt, and all the vegetable matter thus collected, to be removed. That the following streets, viz.: Chestnut, Walnut, Spruce, Pine, Cedar, Lewis, Richard, Hampton, McDuffie, Harmstead, Helmuth, Harrison, of the Southern District—and Vine, Sassafras, (*Race*), Cherry, Mulberry, High, Jones, Barker, St. Josephs, of the Northern District. And *all* the streets, courts, lanes and alleys, in both districts, running east to west—and Water, Front, Second, Third, Fourth, Fifth, Sixth, Seventh, Eighth, Ninth, Tenth, Eleventh, Twelfth, Thirteenth, and Juniper, shall be

cleansed as above, *twice in each week*, and all the other streets, lanes, courts and alleys, and Delaware Avenue, shall be cleansed as above, *once in each week*. That in addition to the above cleansing, they, the contractors, will cleanse, as above, any of the main streets west of Schuylkill Sixth street, whenever required to do so by the Committee on Cleansing, of the Select and Common Councils of the city of Philadelphia, or the Commissioners of said city: And the gutters of the said streets shall be well and thoroughly washed and cleansed. That they will collect and remove all kitchen offal which may be placed by housekeepers in some convenient place for the purpose of removal, *daily*, from the first day of June to the first day of October—*three* times a week during the months of May and October, and *twice* a week, during the other months of the year;—said offal to be removed in water-tight carts. That the several market-houses in said city, shall be completely washed and cleansed, at least twice in each week, from the first day of May, to the first day of October, and whenever the said Committee on Cleansing may direct.

That they will cleanse the inlets to the common-sewers, and remove the dirt therefrom, whenever the same may require cleansing, and lime them whenever the Committee on Cleansing may appoint. That they will collect and remove all the *coal ashes placed on the pavements* by housekeepers, for the purpose of removal. That they will cut the ice from the gutters, and open a free passage for the water through the same. That they will remove from the streets, at the request of the Mayor, the President of the Board of City Commissioners, or the Committee on Cleansing, any offal, or other substance that may become a nuisance.

The expense for the foregoing services, for the Northern District, extending from river to river, and from Vine to north side of Chesnut street, as per contract with Henry

Bickley, is *five thousand, five hundred and fifty* dollars, and schedule of horses, carts, harness, tools, &c., \$2,701 05. The South District, extending from river to river, and from north side of Chesnut to Cedar street, inclusive, as per contract with Robert Patton, is *five thousand, four hundred and fifty* dollars, and schedule of horses, carts, harness, tools, &c., \$2,306 50.

*Question 2.*—Are the courts, lanes, or alleys, occupied by the poor, cleansed—and how often?

*Answer 2.*—The courts, lanes, and alleys, wide enough to admit a horse and cart, ought to be cleansed twice a week, or once a week, the same as the streets, according to their location; but whether they are so actually cleansed, I know not. *Unpaved* streets are not cleansed by the contractors, and not considered as part of their duties.

*Question 3 and 4.*—Where is the refuse from the houses deposited?

*Answer 3 and 4.*—*Henry Bickley's* depot, for the North District, is near Broad, below Federal street.

*Robert Patton's* depots for the South District, for *offal*, is two miles down Long Lane—for that portion which is not sold previously, and for *street dirt*, out Cedar street, the principal part of which is sold, and put on board of boats, at Shippen street, Southwark.

*Question 5.*—And such other matters in relation to this subject, as you may deem interesting and useful?

*Answer 5.*—From complaints made to this office, I have learned that several instances of this kind exist on the eastern front of the city, to wit: Buildings, the apartments of which are fully occupied with tenants, without any privies for the disposal of human excrement. One case is to be found at Ton, or Tun, alley, below Chestnut street. Others



are believed to exist in buildings, fronting on Front, and extending through to Water street, north of Sassafras street, in the same predicament, and no doubt there are more, if sought for. It has occurred to me, that some persons should be authorized and required to enter upon, examine, and report all such cases, and others of a nature to nourish and propagate disease. If this is not done, the citizens should be invited to communicate cases of nuisances in their respective neighborhoods, giving them assurances that the name of the complainant should remain unknown.

I observed on the afternoon of the 18th instant, a number of *pigs* and *pens* yet remaining in the western part of the city, between High and Spruce streets. The Board of Health caused the removal of pigs and pens, *out* of the city, why not those *in* the city.

The foregoing is all that occurs to me at present. Should any thing new arise, deemed worthy of your attention, I shall have the honor of communicating it.

I am very respectfully,

Your obedient servant,

AD: TRAQUAIR, *President.*

*December 19, 1848.*

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No. 6.

*Philadelphia, 18th December, 1848.*

CHAS. A. POULSON, ESQ.

Chairman of Committee of Select and Common Councils.

SIR:—In answer to the questions proposed to me, I would answer that the South West District is not so closely built up as some of the eastern districts, and as a general thing the courts inhabited by the poor are tolerably well ventilated, and with a small degree of care as to cleanliness,

might be kept in a very healthy condition. There are some exceptions in this section, however, that are neither well ventilated nor clean.

Generally, in the western portions of the district, the courts are not closed up, but mostly open on some street at one end, and on a lot or yard at the other. There are quite a number, however, that are built up at one end and have only a small alley opening on to the street.

The houses occupied by the poor are mostly small brick three story houses, having but one room on a floor.

As an average of the *poorest* inhabitants, there are two families in one house, but in a number of cases there is a family to a room, and where the house is a double one there are as many as four and five families living together. When there is more than one family occupying a house, there are from three to five persons in a room. The room having for ventilation a door, a window, and a chimney.

The houses are heated mostly by coal stoves.

If it is required, I will be glad to give a more special account of such places as are closely built up, and of such as are prejudicial to health.

Very respectfully,

Your obedient servant,

JOHN HEWSTON,

*Collector of Vaccine Cases, S. W. District.*

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No. 7.

CITY SURVEYOR'S OFFICE, }  
December 18th, 1848. }

TO CHARLES A. POULSON, ESQ.

DEAR SIR:—In answer to the questions annexed to yours of the 12th instant, respecting the drainage of the City, with a view to the preservation of health, I offer you the following information :

In all the public streets, courts and alleys within the City, the regulation of ascents and descents is established according to law, and recorded in the City Surveyor's Office—and all the curbstone that are set or reset for the purpose of paving, or otherwise, are required to conform to such regulation both as to lines and heights.

While the pavements and gutters are kept in good repair, and properly cleansed, the inclination given for drainage by the established regulation is sufficient to prevent any water from standing in the streets, courts or alleys of the City.

To avoid too much water from collecting at any one point in time of rain, or melting of snow, sewers are made under almost every principal street in the City, where such accumulation of water is likely to happen, varying in size from three feet to ten feet in diameter in the clear, which, with their branches, at the present time amount in the aggregate to *eleven and three-fourths* miles, or *sixty-two thousand four hundred and fifty* feet, more than *four and a half* miles of which is discharged through the Dock street sewer into the river Delaware,—which is too great a quantity of drainage to be collected at any one point,—this may be remedied by the construction of the proposed Walnut street sewer.

Additional branches are constructed every year, as the progress of improvements, the accumulation of water, or other circumstances, may require.

The practice of raising up the putrid filth and mud, that collects in the *cesspools* at the inlets of the sewers, and placing it on the pavement in the hot sun, ought to be discontinued—all substances that can be passed along the sewers should be discharged into the river, as far into the channel as practicable.

In cleansing the streets, a *brush*, *harrow* or *drag*, drawn by one horse, should be passed along the gutters, with a brisk current of water from the hydrants, particularly during the hot months of summer.

Wherever it is practicable, the sewers ought to be laid so deep as to admit of the adjoining cellars being drained into them, for the more the drainage of the City can be carried off below the surface the better it is for the preservation of health, and the durability of the pavements.

The increasing disposition to encroach upon the public streets has become a great evil; fences are made on the sidewalks, empty boxes and other articles lumber them up, for no other purpose than to make a false show of business,—while the cart-way is often used as workshops and depositories for building materials, an unreasonable length of time.

In a large City like Philadelphia, the sound principles of law and common justice, which requires a man to “*use his own in such way as not to deprive his neighbor of the use of his own,*” ought to be strictly observed. The laws in relation to party walls, and the improvement and occupancy of adjoining grounds, appear to be very defective; great abuses are often committed, injurious to the property and health of individuals, for which the existing laws afford no adequate remedy.—This is a subject of vast importance, and ought to be thoroughly investigated, with a view, if possible, to lessen or prevent the evil.

In many of the cities of Europe party walls cannot be erected without the immediate supervision or direction of skilful and disinterested mechanics, appointed for the purpose; a like provision ought to exist here, not only to protect the rights of individuals, but to prevent the unnecessary occupancy of the public streets with building materials.

Large sums of money are annually expended by the City in making sewers, paving, repairing, and cleansing the public streets, in introducing pure gas, and wholesome water. Yet all this is not sufficient to preserve the health and comfort of the citizens, so long as hog pens, stagnant ponds of water, and factories, of a dangerous, offensive and unwholesome character, are allowed to remain upon the premises of



individuals, contrary to the spirit and meaning of existing laws for the suppression of nuisances.

A disregard of the rights of others, in setting up and maintaining nuisances beyond the reach of law, calculated to generate foul air, and consequent disease, is one of the greatest evils that can exist in a large city, and he who labors successfully to prevent it, is justly entitled to the highest reward of his fellow citizens.

Very respectfully, yours,

SAMUEL HAINS.

P. S.—At a convenient time I should like to have some conversation with you on the subject of this communication, which may require some explanation. S. H.

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No. 8.

*Mayor's Office, Philadelphia,* }  
Dec. 20, 1848. }

TO CHARLES A. POULSON, Esq.,

Chairman, &c.

DEAR SIR—I had the honor to receive your communication, as Chairman of the Joint Special Committee of Select and Common Councils, &c., dated the 18th instant, on the evening of that day, and the question annexed, viz.:—Are existing regulations on the subject of Public Hygiene effective or not? with the request, that “I add” such other matters in relation to this subject, as I “may deem interesting and useful,” have received the thought and attention which my limited opportunities to devote to the subject, will allow.

I cannot plead ignorance of the importance of the subject, though I do of its details, for Hygiene, (*Health*), is “ the part of medicine, whose object is the preservation of health ; it embraces a *knowledge* of healthy man, both in society and individually, as well as of the objects used and employed by him, with their influence on his constitution and organs.”

This opens a wide field for reply, and not feeling a competency thereto, I beg leave to confine myself principally to the “ other matters which may be interesting and useful.” From the general cleanly appearance of our streets, I incline to the opinion, that existing ordinances on that subject are sufficient for all the exigencies which may arise—proper care and attention only being requisite on the part of the contractors, to keep our city what it has the credit of being, the cleanest in the Union. Still there may be, and no doubt there are, particular locations, where the broom and the scraper of the scavenger are not plied so frequently as is desirable, and the visits of the dirt cart and the carts for offal, are few and far between ; but their delinquencies receive, *or ought to*, the constant attention of the high constables of each district.

There are cases reported at this office, occasionally, which are proper subjects for the action of the Board of Health, and no doubt there are cases reported at the Board of Health, which are proper cases for the municipal police to look after. When such cases occur, they are generally handed over to the proper authority, for their attention thereto.

A few days since, two gentlemen transacting business in Water street, called at this office, to make a complaint. As the Mayor was engaged at the moment, and one of the parties being a personal acquaintance, he stated to me the object of his visit. A Mrs. — resided near to his place of business, in Water street. The premises occupied by her had become so exceedingly offensive, that a person had been

employed by them to alter the condition of things there. The man engaged to do this work was a veteran in the business; but as he proceeded in his manipulations and operations, the effect upon his olfactories and stomach, was such, that he was obliged to retire from the scene of action, overcome. The premises, however, by perseverance, were finally and effectually cleaned. The complaint was, that though this had been done only on the day previous, the premises were again as bad and offensive as ever, and the interposition of the authorities was invoked to put a stop to the nuisance, if practicable. There are houses on the eastern side of Front street, near to Race and to Vine street, which have formerly come under the notice of this office, from complaint. They are filled with the families of the poor, and every room is occupied. These houses have no privies, and the consequences may be imagined. The owners of such property, I suppose, to be indictable, at common law, for nuisance.

Beyond the public eye, generally coming under the cognizance only of suffering neighbors, occupied by the poor, the sympathies felt for them frequently prevents the mention thereof, or complaint to the proper source, for an abatement of the nuisance, or otherwise a fear of the revenge of occupants on becoming informers, &c. The piggeries on the lots in the western open portion of the city have been frequently spoken of as injurious to health, and complained of. Parties have been arrested by the watchmen in the act of emptying buckets of "filth" in the streets. How dwellings suspected of being filthy, are to be gotten at, and the remedy applied, in case of necessity, except from a personal inspection, I am not able to say. When public attention is aroused thereto, by the approach of disease, a remedy of some kind is demanded by the welfare of the public at large. Are existing regulations sufficient?

But, sir, my peculiar vocation, from its nature, bringing me more into contact with “public *hydras*,” and a greater familiarity with them, I beg leave respectfully to take my leave of “*Public Hygiene*,” and subscribe myself,

With great respect,

Your obedient servant,

J. HENRY BULKLEY,

*Second Lieutenant of Police.*

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No. 9.

*Philadelphia, Dec. 28, 1848.*

CHAS. A. POULSON, Esq.,

Chairman Joint Special Committee of Councils.

In compliance with several questions submitted to me, to answer, I respectfully give the following, in connection with the verbal information I gave you a few days since, with regard to the situation of families residing in the North East or First Vaccine District, viz.: From the south side of Vine, to north side of Chesnut street; and from east side of Ninth to Delaware Avenue.

Mechanic street, running from Vine, below Ninth, to Maple street; inhabitants white and colored, badly ventilated, owing to the back yards from the houses in Ninth street, (say nothing of Chester street.) Some two and three families in a house.

James street, from Maple street, small houses, but clean; ventilation tolerably good.

Lemon street, back No. 30 Chester street, two houses not clean; back of No. 11, do., three houses no ventilation.

Lawrence street, or Court, Eighth street, below Vine street, closed at the end; inhabitants white and colored; no



ventilation, not clean, upper house four families, a sink in the cellar.

Back No. 300 Vine street, frame houses, not clean.

Garrigues' court, below Sixth street, in Race street, closed at the upper end; four or five three story brick houses, no ventilation.

Myers' court, next the above, ventilation not good, owing to Elliott's avenue, which is opposite Mayland street; two or three families in a house, inhabitants white and colored, including Mulberry alley, in a dirty condition. Should this vicinity be visited by any contagious disease, it would indeed be alarming.

Back No. 128 north Fifth street, two or three small old dwellings, formerly part of the old "Fourteen Chimneys;" no ventilation.

Back No. 9 Crown street, three or four old bricks, closed at the lower end, no ventilation.

Back No. 122 north Fourth street, three houses, no ventilation whatever.

Back No. 93 north Fourth street, shut up at the east end; four old small dwellings, no ventilation at all.

Back No. 149 north Third street, two dwellings, no ventilation.

Dannaker's avenue, Third opposite Branch street; double court, no ventilation.

Hermitage place, back No. 129 north Third street, ventilation not good.

Ferries' court, Front below Vine street, closed at the west end, ventilation bad.

McCulloch's court, below the former; better ventilated—clean.

Brook's court, Front above Race street, closed at west end, ventilation imperfect.

Coates alley, poorly ventilated.

Front street, east side, from Vine to Race street, from three to six families in a house, basement stories badly ventilated ; most of these houses throughout in a filthy condition.

Water street, houses from Vine to Race street, each room occupied by families with a number of children, houses in a truly filthy condition, badly ventilated.

Elfreth's, Comb's, Jones's, Drinker's and Black Horse alleys, need great ventilation.

A small lane in Lætitia court needs ventilation.

John's court, in Second street above Jones's alley, (a small alley leads to it, where it widens,) is closed at the east end ; eight or nine three story shallow houses, with three and four families in a house, including a number of children. This court is blocked up on the south, by houses in Jones's alley ; no ventilation.

La Grange Place, back of Baptist Church, Second near Arch street ; houses occupied by several families ; not clean, no ventilation.

A double court, back of south side Arch above Second street ; seven or eight small houses, families with two and three children. This court is closed at the east end, and there is a space of about ten or twelve feet between the fronts of the houses, consequently no ventilation whatever, as there is but one dark room on a floor.

Seiser's court, Race below Second street, no ventilation.

Several courts on the east side of Bread street, are closed, (and closely too) at east end ; no ventilation, but the houses clean.

Quarry street and Fetter lane, not much ventilation.

Biddle's alley, from south side of Market, above Third street, leading into Elbow lane ; wretched place ; would be terrible, should fire take place here.

Strawberry street, some two or three families in a house ; ventilation not good.

Franklin Place, same as above.

Lodge Place, from Eighth above Chesnut street, same as above.

Grape court, is, perhaps, worse than Front and Water streets, as above; houses in a filthy condition; families in every room, and no ventilation.

From Cherry above Fourth street, there are three small courts, closed on the north and south.

Cherry street above Sixth street, very unclean, and from Seventh to Eighth street, there are several courts closed at the ends.

Eutaw street, formerly Wagner's alley; inhabitants white and colored; miserable place.

Kenworthy's court, joining the above, closed at the north end; no ventilation.

Mary's court, next to the above, closed at the north end; no ventilation.

Knight's court, double, closed at the south end; not much ventilation.

Filbert avenue, no ventilation.

Farmer's street, (formerly Sugar alley,) has three courts, each closed at the north end; but little ventilation.

Freed's court, below Eighth street, Cherry street to Mulberry alley; tolerably clean, ventilation not very good.

Trusting that the above information may prove some benefit to your respectable Committee.

Your obedient servant,

JOHN CLAWGES, V. C.

P. S.—An answer as to how the rooms of poor families are warmed, is not very easy to get at; but a number of poor families obtain shavings and chips from neighboring carpenters' and coopers' shops, and the wharves, which they use as fuel.

## No. 10.

*Extract of a letter from Mr. John Clawges, dated January 3rd, 1849.*

“I omitted to state in my communication of the 28th December, an important fact, namely: the abominable vice, intemperance, which abounds in many places in my district. In such filthy places as I have described, cholera is sure to be traced. I well remember, in the year 1832, when the cholera visited Philadelphia, that about one-fourth of the cases could be traced to intemperance.—I had a good opportunity of knowing this, as I had the management, or being Steward of one of our hospitals at the time.”

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## No. 11.

*Philadelphia, December 29th, 1848.*

**CHARLES A. POULSON, Esq.,**

Chairman of the Joint Special Committee of Councils.

**SIR:**—Having received your note requesting answers to the sundry questions proposed by your Honorable Committee, in relation to the more densely populated parts of the south-east district of the City, and as I have endeavoured to attend to the subject matter pointed out, I shall be much pleased should the answers given meet your approbation.

*Question.*—What is the condition of the more densely populated parts of the City in respect to ventilation?

*Answer.*—All those houses situated on the principal streets between the river Delaware and Ninth street, appear to be



ventilated both front and rear, with the exception of the west side of Water street, between Chesnut and Dock street, the basement stories having no other ventilation than that given through the front doors.

*Question.*—Are the lanes, alleys and courts, built up and inclosed at the end?

*Answer.*—The following named alleys are open at both ends; all the alleys or cart-ways on the east side of Water street to the river:—

Taylor's alley, between Chesnut and Walnut streets, is built up and open from Front to Second street.

Gray's alley, is built up and is open to Second street. A small court back (No. 3,) in gate.

Norris's alley, is built up and open to Second street.

Elmslie's alley, west of Second street below Dock street, is open to Laurel street.

Carter's alley, west of Second street below Chesnut street, is open to Third street.

Exchange Place, is open from Chesnut to Dock street.

Bank Alley, is open from the west side of Second street to Dock street.

Lodge Place, is open from the west side of Second street to Dock street.

York Row, is also built up and open from the east side of Third street to Laurel street.

Cypress Alley, is built up and open at both ends from Second street to Third street.

Relief Place, is built up and inclosed at one end, situated between Lombard and South streets and between Front and Second streets.

Mary's Court, is built up and inclosed at one end, situated east of Second street between Lombard and South streets.

A small Court, back of No. 131 Second street, is built up and open at one end.

A small Court, west Laurel street opposite Elmslie's alley, is built up and inclosed at one end.

Townsend's Place, is built up and open from Spruce street to Union street, between Second and Third streets.

Comptroller Street, is built up, and open from Spruce to Union street between Second and Third street.

Fisher's Court, is built up and inclosed at one end, situated east of Laurel street, below Third street, and north of Spruce street.

Southampton Court, is built up and inclosed at one end, situated east of Laurel street.

Topham's Court, is built up and inclosed at one end, situated south of Spruce below Second street.

Loxley's Court, is built up and inclosed at one end, situated south of Spruce below Second street.

Willing's Alley, is built up and open from the west side of Third to Fourth street.

Smith's Court, is built up and inclosed at one end, situated south of Gaskill street below Third street.

School Avenue, is built up and inclosed at one end, and situated back of Union street, No. 40 west of Second street.

Taylor's Alley, is built up and open, situated south-east from Gaskill and Barron streets.

Harmony Court, is built up and open from Third to Fourth street, above Walnut street.

Marshall's Court, is built up and open from Fourth to Fifth street.

Lombard Court, is built up and inclosed at one end, situated west of Fourth street below Pine street.

Whitaker's Court, is built up and inclosed at one end, west of Fifth street above Spruce street.

Portland Lane, is built up on south side and open, situated below Spruce street, between Sixth and Seventh street.

Middle Alley, is built up and open, situated south of Portland lane.

Little Pine Street, has two old frame houses, and inclosed at one end, situated east of Sixth street above Lombard street.

St. Mary Street, is built up and open from Sixth to Eighth street, above Cedar street.

Bedford Street, is built up and open from Seventh to St. Mary street.

Bell's Court, is built up and inclosed, situated north of Bingham's court, Spruce street below Fourth street.

Madison's Court, is built up and inclosed at one end, situated below north-east corner of Seventh street in St. Mary's street.

Acorn Alley, is built up and open at each end, situated north of Spruce street below Ninth street.

Lafayette Court, is built up and inclosed at one end, situated north of Cedar street between Fourth and Fifth streets.

Scott's Court, is built and open at each end, situated north of Cedar street between Fifth and Sixth streets.

Pleasant Avenue, is built up and open at each end, situated north of Lombard street below Eighth street.

*Question.*—What is the character of the houses occupied by the poor?

*Answer.*—Many of the houses are clean and apparently comfortable, and others want cleansing. I beg leave further to add, that I have noticed many of the alleys and courts inclosed at one end to be very cleanly kept by the occupants of the houses situate therein, while some of those built up and open at each end present a contrast.

*Question.*—What number of families occupy one house; how many persons live in one room, and what provision for ventilation?

*Answer.*—I have not been able to learn that more than three families occupy one house, containing about six rooms, and the number of persons, large and small, who reside in one room, is generally from three to five.

Where the houses are three stories high, containing two rooms on the same floor through, they have generally ventilation from the front and rear; and such are the houses mostly rented by the poor.

*Question.*—How are the houses warmed in winter?

*Answer.*—I have not noticed the houses to be warmed in any other way than by the application of coal or wood stoves.

*Remarks.*—I have noticed, in canvassing the district at this time, that the number of persons who inhabit the houses situated on streets adjacent to the river, have considerably diminished since the spring and summer; and this I believe to be owing, in a great measure, to work in the coal business in Richmond, Rail-roads, &c., &c.

I have the honor to be,

With high respect,

Sir, your obedient servant,

JAMES KELLY,

*Collector of Vaccine Cases S. E. District.*

No. 12.

*Philadelphia, January 4th, 1849.*

In accordance with a resolution of Councils, I report as follows;—

An old frame building in Tenth above Race street—in a most dilapidated state—a standing nuisance—seven families.

Liberty Court, Tenth below Vine street, eleven houses; no ventilation—in a filthy condition; inhabitants colored—fifteen families, fifty-two persons.

A court back No. 159 Eleventh below Vine street, twelve houses; little or no ventilation—sixteen families; eighty persons—in a filthy condition; privies leaking into cellars.



A house in Vine street, back of the above, privy said not to have been cleaned for thirty-five years.

Privies generally require emptying, especially where there is a communion of families.

**JOHN M. FERNSLER,**

No. 36 south Fourth street.

*Vaccine Collector for the N. W. District.*

**MR. POULSON,**

No. 172 south Front street.

No. 13.

*Philadelphia, January 10th, 1849.*

SIR:—In connection with a former report respecting the North Western District of the City, of which I am vaccine collector, I have to report:—

Baldwin's Court, Juniper above Market street, which I conceive is a nursery for any contagious disease—there are upwards of twenty houses poorly ventilated—a number of families of the poorer classes, and very dirty.

Court back of the Markoe house, Chesnut street, entrance back of St. Stephen's church.

Marble Court, Tenth below Market street, always in a filthy condition.

The North Western District, extending from Ninth street to the river Schuylkill, and from Chesnut to Vine street, I think has fewer courts, and most cleanly part of the City.

The privies are the greatest nuisance I can find. In many places, the persons occupying premises cannot open their back windows without filling their house with an intolerable stench; this is not confined to the smaller class of buildings, but appears to be nearly general.

Thus far I have been indefatigable in my searches, not having received any communication from yourself or Councils until January 3rd.

Any duties connected with this, I shall cheerfully respond to.

Respectfully,

JOHN M. FERNSLER,

No. 36 south Fourth street.

MR. CHARLES A. POULSON.

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No. 14.

HEALTH OFFICE, }  
Philadelphia, Jan'y 15, 1849. }

SIR—At a meeting of the Sanitary Committee of the Board of Health, held on the 4th of January, 1849, the communication of the Special Committee of City Councils, on the subject of Public Hygiene, was read, when it was

*Resolved*, That the answers on the subject, prepared for Dr. Parrish, be furnished to the Committee of City Councils.

Extract from the minutes.

SAMUEL P. MARKS,

*Clerk of Board of Health.*

To CHARLES A. POULSON, Esq.,

Chairman of the Special Committee of City Councils,

On the subject of Public Hygiene.

*To the President and Members of the Board of Health :—*

The Sanitary Committee, to whom was submitted the communication addressed to this Board, by the Committee on Public Hygiene, appointed by the American Medical Association, in May last, in the city of Baltimore, beg leave

to offer the following as their Report, in answer to the several queries embraced therein.

The sanitary question, as committed to the Board of Health of our city, viewing it either in its physical, economical, or moral relations, is one which has never received that careful attention, which its intrinsic worth should have claimed at their hands. The whole subject, as far as the records and journals of the Board throw any light upon it, has been adverted to only in a very general and imperfect manner; nor can there be found any sanitary statistics, exhibiting the removable causes of disease in our city, and the comparative unhealthiness of one located district over another, or of them all over rural districts; or any records to show or determine the annual waste of human life in a city so favorably circumstanced as Philadelphia. To this casualty, alone, must be imputed the entire absence of all statistical information in the few brief answers to the questions addressed to this Board, by the Committee on Public Hygiene.

*Question 1.*—"What is the character of the town, in reference to health. What is the condition of its most unhealthy and crowded parts, where disease is supposed to be most prevalent, and to what causes are such diseases mainly attributable?"

*Answer.*—It is our distinguished privilege to enjoy, both at home and abroad, the reputation of a comparatively healthy city. Nor are we undeserving of it. The rectangular location of our streets, running parallel with a line stretching from north to south, with another from east to west, thus affording, at all seasons, the most ample facilities for a free current of pure air, the abundant supply of water, and its excellent quality, together with our admirable municipal regulations, enforcing cleanliness in the streets, are obviously the principal of those general hygienic causes, which so eminently contribute to preserve the health of our city.

It should not be overlooked, that there exists a limited district in one of our suburbs, a locality that is abundantly fruitful in originating and propagating disease, and where, at all seasons, winter and summer, spring and autumn, we anticipate its irruption in some frightful or protean form. In this almost isolated neighborhood, we find an excess of a vagrant population, half fed and half clothed, crowded together in almost untenable houses, and in open and humid cellars, located in narrow streets and narrower alleys, and pent up courts, badly ventilated and badly lighted. In this forbidding district, we could enumerate many fruitful causes for disease, operating upon the half famished and bloated bodies of a depraved and mixed population, whose constitutions have been undermined through the ravages of intemperance and exposure, the accumulation of filth and impure food and air, accompanied by the far more ruinous effects of a life of moral shame and degradation, become the fit receptacles, and afford the materials for the growth and reproduction of those morbid agents which constitute disease.

It may not, perhaps, be thought amiss here, to allude to the fact, that in several of our rapidly improving neighborhoods in the outer precincts of our city, and in all that section bordering upon what is familiarly known as the "Neck," we have prevailing, to a greater or less extent, in the autumn of every successive year, autumnal fevers, which are to be attributed to local causes, arising, in a large degree, out of the emanations from a humid or a malarious atmosphere, the result, perhaps, to some considerable extent, of the constant turning and overturning of the soil, or the deep pools of standing and stagnant water, and the numerous brick-ponds that come within the immediate range of our suburban population.

*Question 2.*—"What is the mode and expense of cleansing the streets. Are the courts and alleys occupied by the poor



cleaned, and how often. Where is the refuse from the houses deposited, and where is the street manure kept, and how disposed of?"

*Answer.*—Our streets are cleansed, with some exceptions, once a week and by contract—the contract, in some instances, given to the highest bidder—the value of the street dirt being held, not only as an equivalent, but as a source of revenue to the contractors. The mode of cleansing as follows:—The streets are first watered in dry seasons, and then by the application of large birch brooms, aided by iron scrapers for the gutters, the dirt is gathered into heaps, on either side of the street, taken up by carts and deposited on vacant lots, subjacent to the outskirts of each district appropriated for the same, by the several municipal authorities. Here it is kept until disposed of in lots to suit purchasers, and conveyed to the neighboring farms, where it is distributed as a second rate manure for the fertilizing of land. The kitchen garbage, offal and slops from houses, are generally collected by covered water-tight carts sent round on particular days through the week, taken out of the city, and the most of it converted into swill for hogs: While the dry refuse from houses, such as coal ashes and cellar dirt, is collected in the same manner, and sold for filling in lots and streets in the new and outer precincts of the City and Liberties. Complaints are not unfrequently made, that the courts and alleys occupied by the poor, do not receive like attention, from the municipal authorities, as the larger and better ventilated streets.

*Question 3.*—"What is the condition of the more densely populated parts of the town, in respect to ventilation. Are the streets wide or narrow; are courts and alleys built up and closed at the end, and what is the character of the houses of the poor; what number of families occupy one house; how many persons live in one room, and what

provision for ventilation; how are the houses warmed in winter?"

*Answer.*—In reply to these queries, we answer, that the district already alluded to, in the reply to the second question, embraces the principal section of our city, where free ventilation is obstructed; nor do we believe that this defect is owing as much to the construction of the houses as to the condition of their crowded inmates, and their degraded character, accompanied by the filth, poverty, disease, intemperance and immorality which exists in their midst. In the city proper, and along the west side of Water street, between Vine and Arch streets, may be found dwellings very illy constructed for a free circulation of air, without yards, and erected under a towering bank, where but little air can reach the lower apartments. These houses are mostly occupied by the lower classes, and in many of them may be found a family in every story. The streets of our city are from 40 to 60 feet in width. The courts and alleys in the most ancient parts of the city and suburbs are generally narrow and confined, and by no means well constructed for ventilation—but in the newer precincts, and wherever modern improvements have supplanted the older ones, a very careful regard has been exercised for the comfort and health of our inhabitants, in the laying out of these minor streets and alleys. The same observation will apply to the dwellings of the poor, viz: that while our fathers built compactly, and without any special reference to a free circulation of air in the narrow alleys and blind courts, the more recent improvements show a due regard to the principles of Hygiene, by reserving space for an unobstructed circulation of pure air. It is no uncommon thing to find two or three families occupying one house of ordinary dimensions in the more densely populated districts, and in courts and alleys, and in some neighborhoods, especially those already referred to, there will be found a family con-

sisting of five or six individuals, in every room in the house. The ventilation in these houses is generally better than can be conceived. By the poor and the middle classes the burning of Anthracite coal in stoves is now the almost universal method of warming the houses—while among the more wealthy, the dwellings are warmed by hot air passing through flues attached to a coal furnace in the cellar.

*Wilson June*

*Question 8.*—"From what source is the town supplied with water? What are its qualities; and is it abundant?"

*Answer.*—The city and incorporated districts are supplied with water from the river Schuylkill, by means of two reservoirs or basins, one at Fairmount, and one about half a mile northward. The supply is generally abundant, and of excellent quality, and with the free ventilation afforded by our rectangular streets, might be made a most efficient means of Public Health, which involves the consideration of

*Question 9.*—"Are the municipal regulations on the above subjects effective or not?"

*Answer.*—As far as the authorities have provided by Ordinance, the municipal regulations are effective, viz:—the agents of municipal bodies execute the orders of the body they represent—but it is believed that a very short sighted circumscribed policy obtains too generally in the administration of local Ordinances, with reference to public health in the free *use of water*, which it should be made obligatory to have introduced into every house erected, however small. By facilitating the means of frequent bathing in families—particularly the poor and laboring classes—the effect would soon be apparent, by removing a prominent cause of disease, and contribute to the moral as well as the physical improvement of the lower classes of society.

*John K. Elling*



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